hold from'' means, for barge-carrying vessels with vertical holds, that separation by an intervening hold or engine room is required. On barge-carrying vessels having horizontal barge levels, separate barge levels and a longitudinal separation by at least two intervening barge spaces are required.

(k) *Segregation requirements for ferry vessels:* A ferry vessel (when operating either as a passenger or cargo vessel) that cannot provide the separation required in this section may carry incompatible hazardous materials in separate transport vehicles if they are stowed to give the maximum possible separation.

[Amdt. 176–30, 55 FR 52690, Dec. 21, 1990, as amended at 56 FR 66282, Dec. 20, 1991; 57 FR 45465, Oct. 1, 1992; Amdt. 176–34, 58 FR 51533, Oct. 1, 1993; Amdt. 176–38, 60 FR 49111, Sept. 21, 1995; 64 FR 10781, 10782, Mar. 5, 1999; 66 FR 45184, 45384, Aug. 28, 2001]

§ 176.84 Other requirements for stowage and segregation for cargo vessels and passenger vessels.

(a) *General.* When column 10B of the § 172.101 Table refers to a numbered or alpha-numeric stowage provision for water shipments, the meaning and requirements of that provision are as set forth in this section. Terms in quotation marks are defined in § 176.83.

(b) *Table of provisions:*

Code	Provisions
1	[Reserved]
2	Temperature controlled material.
3	Do not stow with high explosives.
4	Stow ''Separated from'' liquid organic materials.
5	Stow ''Separated from'' powdered metals and their compounds.
6	Emergency temperature material.
7	[Reserved]
8	Glass carboys not permitted on passenger vessels.
9	Glass carboys not permitted under deck.
10	Glass bottles not permitted under deck.
11	Keep away from heat and open flame.
12	Keep as cool as reasonably practicable.
13	Keep as dry as reasonably practicable.
14	For metal drums, stowage permitted under deck on cargo vessels.
15	May be stowed in portable magazine or metal locker.
16	No other cargo may be stowed in the same hold with this material.
17	Segregation same as for flammable gases but ''away from'' dangerous when wet.
18	Prohibited on any vessel carrying explosives (except explosives in Division 1.4, Compatibility group S).
19	Protect from sparks and open flames.
20	Segregation same as for corrosives.
21	Segregation same as for flammable liquids.
22	Segregation same as for flammable liquids if flash point below 61 °C (142 °F).
23	Segregation same as for flammable liquids if flash point between 23 °C (73 °F) and 61 °C (142 °F).
24	Segregation same as for flammable solids.
25	Shade from radiant heat.
26	Stow ''away from'' acids.
27	Stow ''away from'' alkaline compounds.
28	Stow ''away from'' flammable liquids.
29	Stow ''away from'' ammonium compounds.
30	Stow ''away from'' animal or vegetable oils.
31	Stow ''away from'' combustible materials.
32	Stow ''away from'' copper, its alloys and its salts.
33	Stow ''away from'' fluorides.
34	Stow ''away from'' foodstuffs.
35	Stow ''away from'' all odor-absorbing cargo.
36	Stow ''away from'' heavy metals and their compounds.
37	Stow ''away from'' hydrazine.
38	Stow ''away from'' all other corrosives.
39	Stow ''away from'' liquid halogenated hydrocarbons.
40	Stow ''clear of living quarters''.
41	Stow ''away from'' mercury and its compounds.
42	Stow ''away from'' nitric acids and perchloric acids not exceeding 50 percent acid by weight.
43	Stow ''away from'' organic materials.
44	Stow ''away from'' oxidizers.
45	Stow ''away from'' permanganates.
46	Stow ''away from'' powdered metals.
47	Stow ''away from'' sodium compounds.
48	Stow ''away from'' sources of heat.
49	Stow ''away from'' corrosives.
50	Stow ''away from'' sources of heat where temperatures in excess of 55 °C (131 °F) for a period of 24 hours or more will be encountered.
51	Stow ''separated from'' acetylene.
52	Stow ''separated from'' acids.
53	Stow ''separated from'' alkaline compounds.
54	Stow ''separated from'' animal or vegetable oils.
55	Stow ''separated from'' ammonia.
56	Stow ''separated from'' ammonium compounds.
57	Stow ''separated from'' chlorine.
58	Stow ''separated from'' cyanides.
59	Stow ''separated from'' combustible materials.
60	Stow ''separated from'' chlorates, chlorites, hypochlorites, nitrites, perchlorates, permanganates, and metallic powders.
61	Stow ''separated from'' corrosive materials.
62	Stow ''separated from'' diborane.
63	Stow ''separated from'' diethylene triamine.
64	Stow ''separated from'' explosives.
65	Stow ''separated from'' flammable substances.
66	Stow ''separated from'' flammable solids.
67	Stow ''separated from'' halides.
68	Stow ''separated from'' hydrogen.
69	Stow ''separated from'' hydrogen peroxide.
70	Stow ''separated from'' mercury salts.
71	Stow ''separated from'' nitric acid.
72	Stow ''separated from'' nitrogen compounds.
73	Stow ''separated from'' chlorates.
74	Stow ''separated from'' oxidizers.
75	Stow ''separated from'' permanganates.
76	Stow ''separated by a complete compartment or hold from'' organic peroxides.

Code	Provisions
77	Stow ''separated longitudinally by a complete compartment or hold from'' explosives.
78	Stow ''separated longitudinally by an intervening complete compartment or hold from'' explosives.
79	The maximum net quantity in one package for this material shipped aboard a passenger vessel is limited to 22.7 kg (50 pounds).
80	Toy torpedoes must not be packed with other special fireworks.
81	Under deck stowage permitted only if an indicating substance such as chloropicrin has been added.
82	Under deck stowage is permitted only if containing not more than 36 percent by weight of hydrazine.
83	[Reserved]
84	Under deck stowage must be in well-ventilated space.
85	Under deck stowage must be in mechanically ventilated space.
86	Stow ''separated by a complete compartment or hold from'' explosives Division 1.3.
87	Stow ''separated from'' Class 1 (explosives) except Division 1.4.
88	Stow ''separated by a complete compartment or hold from'' Class 1 (explosives) except Division 1.4.
89	Segregation same as for oxidizers.
90	Stow ''separated from'' radioactive materials.
91	Stow ''separated from'' flammable liquids.
92	Stow ''separated from'' powdered materials.
93	Stow not accessible to unauthorized persons on passenger vessels.
94	Plastic jerricans and plastic drums not permitted under deck.
95	Stow ''separated from'' foodstuffs.
96	Glass carboys not permitted under deck on passenger vessels.
97	Stow ''away from'' azides.
98	Stow ''away from'' all flammable materials.
99	Only new metal drums permitted on passenger vessels.
100	Stow ''away from'' flammable solids.
101	Stow ''separated from'' iron oxide.
102	Stow ''separated from'' all odor absorbing cargoes.
103	Only to be loaded under dry weather conditions.
104	Stow ''separated from'' bromine.
105	As approved by the Competent Authority of the country concerned.
106	Stow ''separated from'' powdered metal.
107	Stow ''separated from'' peroxides and superoxides.
108	The transport temperature should be indicated on the tank.
109	Label as a flammable liquid if flash point is 61 °C (142 °F) or below.
110	Packaging Group II if concentration does not exceed 70 percent acid.
111	If concentration exceeds 50 percent acid, notes 66, 74, 89, and 90 apply.
112	Packaging Group II for concentrations not less that 50 percent and Packaging Group III for concentrations less than 50 percent.
113	Packaging Group II if concentrations does not exceed 60 percent acid.
114	Corrosive subsidiary risk label required unless concentration is less than 80 percent.
115	If packaged in glass or earthenware inner packagings in wooden or fiberboard outer packagings, the maximum quantity on any vessel is 500 kg (equivalent to 450 L).
116	In a cargo space capable of being opened up in an emergency. The possible need to open hatches in case of fire to provide maximum ventilation and to apply water in an emergency and the consequent risk to the stability of the ship through flooding of the cargo space should be considered before loading.
117	In a clean cargo space capable of being opened up in an emergency. In the case of bagged fertilizer in freight containers, it is sufficient if in the case of an emergency, the cargo is accessible through free approaches (hatch entries) and mechanical ventilation enables the master to exhaust any gases or fumes resulting from decomposition. The possible need to open hatches in case of fire to provide maximum ventilation and to apply water in an emergency and the consequent risk to the stability of the ship through flooding of the cargo space should be considered before loading.
118	Stowage—Category D, Category E freight containers and pallet boxes only. Ventilation may be required. The possible need to open hatches in a case of fire to provide maximum ventilation and to supply water in an emergency, and the consequent risk to the stability of the ship through flooding of the cargo space, should be considered before loading.
119	Double strip stowage recommended.
120	Provide good surface and through ventilation.
121	Packaging group III when the flash point of the flammable liquid is 23 °C (73 °F) or above.
122	Stow ''separated from'' infectious substances.
123	Stow ''away from'' infectious substances.
M1—M6	[Reserved]

(c) *Provisions for the stowage of Class 1 (explosive) materials:* (1) Explosive substances and explosive articles must be stowed in accordance with Column (10A) and Column (10B) of the 172.101 Table of this subchapter.

(2) The following notes in column 10B of the §172.101 Table apply to the transport of Class 1 (explosive) materials by vessel:

Notes	Provisions
5E	Stow ''away from'' lead and its compounds.
7E	Stowage category ''04'' for projectiles or cartridges for guns, cannons or mortars; Stowage category ''08'' for other types.
8E	When under deck, special stowage is required.
14E	On deck, cargo transport unit must be steel.
15E	On deck, cargo transport unit must be leakproof.
17E	On deck stowage is recommended.

Notes	Provisions
19E	Stow ''away from'' *Explosive, blasting, type C,* UN0083 which contain chlorates or perchlorates.
20E	Stowage category ''03'' for projectiles or cartridges for guns, cannons or mortars; Stowage category ''07'' for other types; magazines must be of steel construction that prevents leakage.
21E	Cargo space ventilation must be carefully controlled to avoid excessive condensation.
22E	When containing chlorates or perchlorates, stow ''away from'' explosives containing ammonium nitrate or other ammonium salts.
23E	Segregate from other Class 1 (explosive) materials in the same manner as is required for flammable liquids.
26E	Stowage category ''13'' and, for on deck stowage, non-metallic lining of closed cargo transport unit is required when not in effectively sealed, sift-proof packages; Stowage category ''10'' permitted when in effectively sealed, sift-proof packages.
0127E	For closed cargo transport unit, a non-metallic lining is required.

[Amdt. 176–30, 55 FR 52693, Dec. 21, 1990, as amended at 56 FR 66282, Dec. 20, 1991; Amdt. 176–43, 62 FR 24742, May 6, 1997; 66 FR 33438, June 21, 2001; 66 FR 45185, 45384, Aug. 28, 2001]

Subpart E—Special Requirements for Transport Vehicles Loaded With Hazardous Materials and Transported on Board Ferry Vessels

§ 176.88 Applicability.

The requirements in this subpart are applicable to transport vehicles containing hazardous materials being transported on board ferry vessels and are in addition to any prescribed elsewhere in this subchapter. Vessels in a service similar to a ferry service, but not over a designated ferry route, may be treated as a ferry vessel for the purpose of this subpart if approved in writing by the District Commander.

[Amdt. 176–1, 41 FR 16110, Apr. 15, 1976, as amended by Amdt. 176–1A, 41 FR 40690, Sept. 20, 1976]

§ 176.89 Control of transport vehicles.

(a) A transport vehicle containing hazardous materials may be transported on board a ferry vessel, subject to the following conditions:

(1) The operator or person in charge of the vehicle shall deliver to the vessel's representative a copy of the shipping papers and certificate required by §§ 176.24 and 176.27;

(2) The vehicle shall be placed at the location indicated by the vessel's representative;

(3) The parking brakes of the vehicle shall be set securely to prevent movement;

(4) The motor of a highway vehicle shall be shut off and not restarted until the vessel has completed its voyage and docked;

(5) All vehicle lights shall be cut off and not relighted until the vessel has completed its voyage and docked;

(6) The operator of a highway vehicle shall remain with the vehicle;

(7) No repairs or adjustments must be made to the vehicle while it is on the vessel;

(8) No hazardous materials are to be released from the vehicle; and

(9) Any instructions given by the vessel's representative during the voyage, and during ''roll on'' and ''roll off'' operations must be observed.

(b) Smoking by any person in or around a vehicle is prohibited.

§ 176.90 Private automobiles.

A private automobile which is carrying any Class 1 (explosive) material (except permitted fireworks or small arms ammunition) may not be transported on a passenger-carrying ferry vessel unless the Class 1 (explosive) material is in compliance with packaging, labeling, marking, and certification requirements of this subchapter. Permitted fireworks and small arms ammunition may be carried without the required packaging, labeling, marking, or certification if they are in tight containers.

[Amdt. 176–1, 41 FR 16110, Apr. 15, 1976, as amended by Amdt. 176–30, 55 FR 52695, Dec. 21, 1990]

§ 176.91 Motorboats.

A motorboat may be transported on board a ferry vessel with gasoline in the tank and two other containers not exceeding 23 L (six gallons) capacity each if they are in the motorboat, closed, and in good condition.

[Amdt. 176–1, 41 FR 16110, Apr. 15, 1976, as amended by Amdt. 176–30, 55 FR 52695, Dec. 21, 1990]